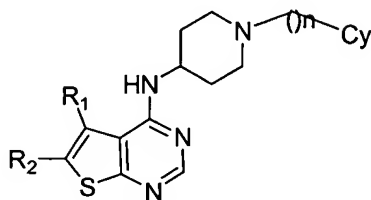


C. Amendments to the Claims

Please amend the claims where indicated:

1. (original) A compound having the formula



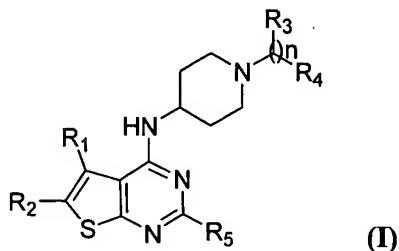
(I)

wherein

- R₁ and R₂ are independently hydrogen; lower alkyl; C₁-C₆ cycloalkyl or cycloheteroalkyl; halogen or halo-substituted alkyl; or R₁ and R₂, taken together, form a C₅-C₇ cycloalkyl or cycloheteroalkyl ring;
 - Cy is a single or conjugated substituted or unsubstituted alicyclic or aromatic ring structure; and
 - n is 0, 1, 2, 3, 4 or 5; and pharmaceutically acceptable salts and/or esters thereof.
2. (original) The compound of claim 1, wherein R₁ and R₂, taken together, form a C₅-C₇ cycloalkyl or cycloheteroalkyl ring.
3. (original) The compound of claim 2, wherein R₁ and R₂, taken together, form a cyclohexyl ring.
4. (original) The compound of claim 1, wherein n is 0, 1, 2 or 3.
5. (original) The compound of claim 1, wherein said lower alkyl is C₁-C₅ alkyl.
6. (original) The compound of claim 1, wherein said compound is a 5-HT receptor antagonist.
7. (original) The compound of claim 6, wherein said compound is a 5-HT₂ receptor antagonist.
8. (original) The compound of claim 7, wherein said compound is a 5-HT_{2A, B or C} receptor antagonist.

9. (original) The compound of claim 7, wherein said compound is a 5-HT_{2B} receptor antagonist.
10. (original) The compound of claim 1, wherein said compound is [1-(2-Fluoro-benzyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
11. (original) The compound of claim 1, wherein said compound is [1-(3-Fluoro-benzyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
12. (original) The compound of claim 1, wherein said compound is [1-(4-Fluoro-benzyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
13. (original) The compound of claim 1, wherein said compound is [1-(4-Methyl-benzyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
14. (original) The compound of claim 1, wherein said compound is (1-Benzo[1,3]dioxol-5-ylmethyl-piperidin-4-yl)-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
15. (original) The compound of claim 1, wherein said compound is (5,6,7,8-Tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-[1-(4-trifluoromethyl-benzyl)-piperidin-4-yl]-amine.
16. (original) The compound of claim 1, wherein said compound is (1-Benzhydryl-piperidin-4-yl)-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
17. (original) The compound of claim 1, wherein said compound is (1-Naphthalen-2-ylmethyl-piperidin-4-yl)-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
18. (original) The compound of claim 1, wherein said compound is (1-Phenethyl-piperidin-4-yl)-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
19. (original) The compound of claim 1, wherein said compound is [1-(3-Phenyl-propyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
20. (original) The compound of claim 1, wherein said compound is (5,6,7,8-Tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-[1-(4-trifluoromethoxy-benzyl)-piperidin-4-yl]-amine.

21. (original) The compound of claim 1, wherein said compound is [1-(4-Methoxy-benzyl)-piperidin-4-yl]-(5,6,7,8-tetrahydro-benzo[4,5]thieno[2,3-d]pyrimidin-4-yl)-amine.
22. (original) A compound having the formula



wherein

- R_1 and R_2 are independently be hydrogen; lower alkyl, C_1 - C_6 cycloalkyl or cycloheteroalkyl; halogens or halo-substituted alkyl; or R_1 and R_2 , taken together, form a C_5 - C_7 cycloalkyl or cycloheteroalkyl ring;
- R_3 and R_4 are independently Ar which is a single or conjugated substituted or unsubstituted aromatic ring structure;
- R_5 is H, $(C_1$ - $C_5)$ alkyl, $(C_1$ - $C_6)$ cycloalkyl, halogen substituted alkyl, NH_2 , $NHMe$, NMe_2 , $NHEt$, $NH(Et)_2$, $NH(Pr)$, $N(Pr)_2$; and
- n is 0, 1, 2, 3, 4 or 5; and pharmaceutically acceptable salts and/or esters thereof.

23-32. (canceled)